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**International Preliminary**

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**RE: PCT Application No. PCT/EP2004/052559 filed on October 15, 2004 in the name of Dayco Europe S.r.l. con Unico Socio**

## **A TOOTHED BELT**

With reference to the application in object for which a demand for International Preliminary Examination has been filed, please find herewith attached the Applicant's comments on the written opinion of the Examiner under Art 34 PCT.

As regards the prior art cited as anticipating the originally filed claim 1, D1 discloses a toothed belt comprising a body made in HNBR and a plurality of teeth which are covered with **a fabric treated with a mixture** including **a resin adhesive** ingredient (resorcin - formaldehyde) and a rubber (a latex) **in which a lubricant is dispersed**. The lubricant is a fluorine resin powder which is dispersed in the RFL (Resorcin Formaldehyde Latex). RFL is generally used to improve the adhesiveness between the covering fabric and the body.

PTFE may be in the form of an aqueous dispersion (see paragraph 31 and all the examples of table 3).

Particularly in the example C5 of table 3 at page 9, cited by the Examiner, PTFE is used in an amount of 200 phr for 100 phr of RFL (last line). According to table 3 the PTFE used has an average diameter of 0,25 µm.

As described at page 2 paragraph 11 of D1: "the invention is directed to a power transmission belt having a body defined by rubber and having an exposed outer surface, a fiber layer on at least a part of the exposed outer surface of the body, and **a mixture** including **a resin adhesive ingredient, a rubber ingredient, and a lubricant** that is a fluorine resin powder that is applied to the fiber layer".

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In paragraph 12 it is said that: "in one form the fiber layer has a first surface which is exposed and a second surface which is applied to the body, and the mixture is applied so that at least the fluorine resin powder is present at the **first and second surfaces and between fibers in the fiber layer between the first and second surfaces.**"

Moreover as it is said in paragraph 13 **"The fibers in the fiber layer may be surrounded by the mixture between the first and second surfaces."**

As it is said in paragraph 15: "in one form, at least one of the resin adhesive ingredient and the rubber ingredient is formed by drying a resorcinol-formalin-rubber latex treating liquid".

The treatment of the covering fabric is therefore indubitably a mixture of RFL and PTFE as lubricant.

The same treatment of the fabric with an adhesive is described in the subject patent application from page 1 line 35 to page 2 line 3 of the description as originally filed.

**This adhesive treatment is made to improve the adhesiveness between the fabric and the body and must therefore penetrate among the fibers of the fabric to reach the body of the belt.**

Therefore D1 suggests to mix the RFL adhesive with a PTFE lubricant which is a totally different treatment from the treatment of the invention of the subject patent and claimed in claim 1.

On the contrary the resistant layer of the present invention is **"on the outside of the fabric"** as present claim 1 recites and it constitutes a **"distinct"** layer separated from the fabric as it appears clearly from claim 1 which mentions a **"resistant layer"** which has a thickness of 50-80 g/m (claim 6). The adhesive RFL layer of D1 could not be a separate layer and it has no thickness because is surrounded by the fibers as mentioned above.

The separate layer of the present invention is constituted by a fluorinated plastomer with the addition of an elastomeric material, which is obviously a totally different material from an RFL layer in which PTFE is dispersed. As it appears from table 3 even in the particular situation of table 3 of D1 in which PTFE is 200 phr on 100 parts of rubber ingredients in latex there is also in the mixture 110 parts of resorcinol and 81 of formalin which constitute the basis for an adhesive layer.

From actual claim 1 it clearly appears that the material of the present invention constitutes a different layer. Also D1 mentions this type of layer at paragraph 18 **"the power transmission belt may further include a first rubber layer on the fiber layer"** and at paragraph 19: "the power transmission belt may have a second rubber layer on the first rubber layer which second rubber layer has at least one of at least one of a) a fluorine resin powder and b) a second lubricant other than the fluorine resin powder". The "resistant layer" of the pre-characterizing part of claim 1 was already known also from D2 of the same Applicant which constitutes the closest prior art for the present Application according to the Applicant and which is commented in the description from page 2 line 16 to page 3 line 2.

The characterizing part of present claim 1 is a purposive selection of a range of the average dimensions of the particles of the fluorinated plastomer in relation to the resistant layer of the pre-characterizing part.

The Applicant deems that originally filed claim 1 is not anticipated by D1 which refers to a different treatment for the toothed belt.

Therefore also claims 2 to 6 are new and inventive, because are dependant from a new and inventive claim 1.

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Also claim 7 is new and inventive over the cited prior art because it is new and inventive to apply by spreading the distinct and separate layer of claim 1 above the fabric of the toothed belt. The closest prior art in this case is represented by D2 in which the layer was applied by spraying is formed separately and coupled to the fabric by means of calender (paragraph 32 of D2) .

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On the grounds of what explained the Applicant deems that the claims are new and not obvious over the prior art applied and are well defined in the subject matter for which the protection is sought.

In view of the above a favourable re-examination of the application in object is respectfully requested.

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Yours very truly

  
Luigi Franzolin